

Atrachelus ignobilis (Stål), *Atrachelus malaisei* n. sp., and *Atrachelus dictrichi* n. sp. This group is characterized by the chitinous arms of the aedeagus being fused dorsally over the phallosoma. Each species also has two rather large lobes in the endosoma.

The remaining species, *Atrachelus fusca* (Stål), cannot be united with any of the above mentioned groups by genitalic characters. General external morphology places it close to the "*ignobilis* group."

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A SECOND SPECIES OF ORTHEZIOLA SULC

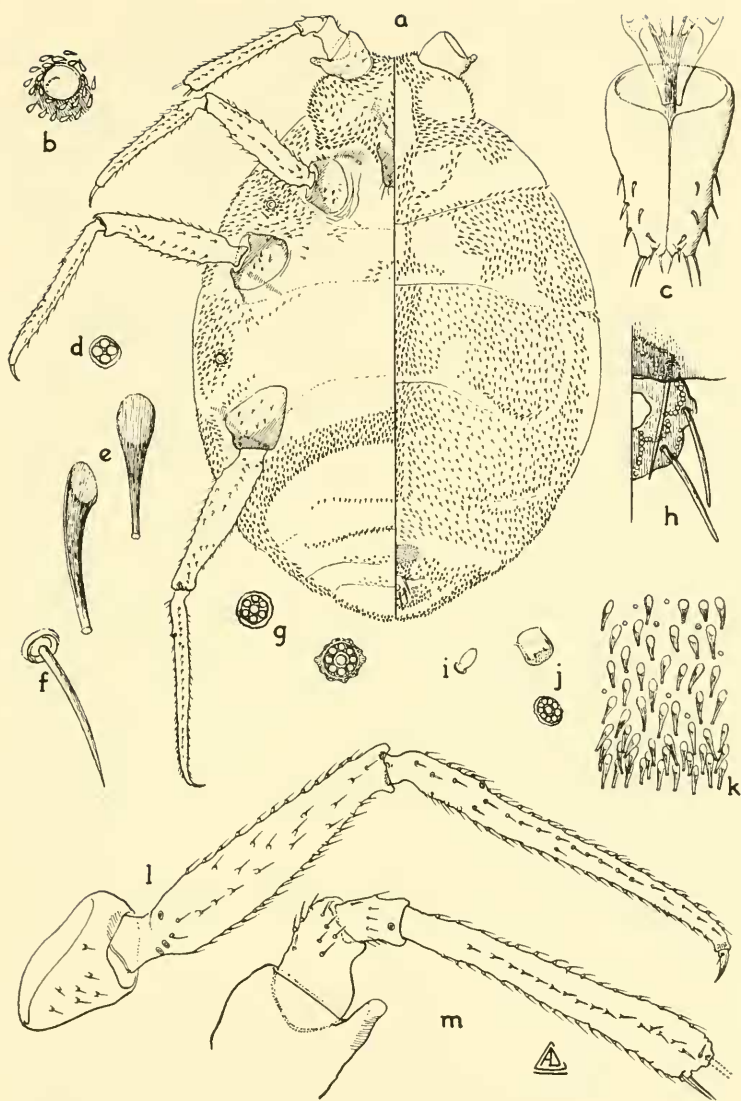
(HEMIPTERA, COCCOIDEA)

BY HAROLD MORRISON, *Entomology Research Branch, U. S. Department of Agriculture, Washington, D. C.*

I am much indebted to Dr. A. Balachowsky of the Pasteur Institute, Paris, for the opportunity to study the specimen here described. The insect is of especial interest both because it adds another species to this genus, hitherto represented only by the genotype, and because of its unusual distribution in relation to the genotype. The drawings accompanying the description have been prepared by Mr. Arthur Cushman.

Ortheziola guineensis, new species

Adult female.—Represented by a single slide mounted specimen with no information available on the appearance and extent of the covering secretion. Body shape, as mounted, elongate ovoid, more pointed anteriorly, length 1.92 mm., greatest width 1.34 mm. Derm membranous, except for a lightly sclerotized, transversely subrectangular plate about 220 μ across by 87 μ on the median line, this located dorsally just anterior to the cluster of spines before the anal plate. Antennae 3-segmented, but each set on a conspicuous, stout, sclerotized cylinder with eyestalk a digitate protuberance from the outer face and outer end invaginated for the reception of the basal antennal segment; dimensions of segments: I, 158 μ long by 99 μ wide, tapering to a constriction before apex, then again expanded; II, 87 μ long by 47 μ wide about middle, gradually enlarged to a flared apical collar about 59 μ in diameter; III, 434 μ long by



Ortheziola guineensis: a, adult female, dorsal and ventral showing approximate condition of spine bands and clusters; b, thoracic spiracle with immediately adjacent spines; c, beak; d, quadrilocular pore; e, body spines; f, body seta; g, multilocular pores of two sizes; h, anal ring, right half; i, small stout spine from area close to anal ring; j, multilocular pore showing additional variation and invaginated position; k, ovisac band, anterior median section; l, posterior leg; m, antenna and basal tubercle supporting it.

71 μ wide near apex, long clavate; antennal setae slender lanceolate each set at apex of a well developed, angularly protruding derm tubercle, average length around 16 μ , those near apex of third segment somewhat longer, probably with an elongate apical seta as in other species, but if so this broken from its socket; with a subapical seta about 44 μ long. Legs slender, dimensions of one hind leg: trochanter-femur 590 μ , tibia-tarsus 670 μ , claw 64 μ : anterior legs somewhat shorter; leg setae slender lanceolate as with antenna, basal tubercles even more prominent; claw digitules short, acute apically, slightly curved, about 11 μ long; no claw denticle; a single sensory pore about one-fourth of the length of the tibio-tarsus from its base and two or three such pores on each face of the fused trochanter. Beak somewhat obscured, apparently 1-segmented, short, about 167 μ long by 118 μ wide at base, apex nearly truncate, with several heavy setae, especially at apex. Thoracic spiracles moderate in size, diameter of atrium around 35 μ , the opening of each surrounded by spines showing a tendency to cluster; abdominal spiracles not located. Multilocular disk pores present, characteristically with eight or more loculi, in small clusters on each side of the anal ring and scattered elsewhere dorsally, and along the inner margin of the posterior portions of the ovisac band and in transverse bands intermingled with setae in front of and behind the vulvar opening, most of these pores appearing as if irregularly margined; small quadrilocular pores scattered through the spine bands. Normal body spines elongate, slender, only slightly curved dorsally, stouter and more strongly curved laterally and ventrally, but characteristically with a distinctly capitate tip, this, however, reduced or wanting in the spines in rows within the ovisac band and in some other ventral spines: these spines well distributed over body in bands and clusters about as shown in figure, the clusters including three narrow wedge-shaped ones on the midline dorsally, these crossing the metathorax and the anterior abdominal segments; spine bands and clusters possibly damaged, as not identical on both sides; in addition to the normal spines, with a few short, stout clavate spines in the spaces on each side of the transverse spine cluster just anterior to the anal ring; two transverse rows of spines across the area enclosed by the ovisac band anterior to the vulva; sample spine lengths, dorsal 20 μ , ventral anterior 15 μ , ovisac band 12 μ , ventral abdominal transverse 9 μ . Anterior median section of ovisac band without associated pore bands along the posterior (inner) margin but with a few small obscure quadriloculars just at the anterior (outer) margin and more of these scattered through the band of spines itself. A few ordinary setae scattered dorsally and ventrally and transverse bands of somewhat stouter setae in front of and behind the vulvar opening. Anal ring small, depressed below the adjoining body surfaces, about 70 μ long by 64 μ wide, the inner row of pores sharply extended towards the center opposite each ring seta, the outer with the pores of the posterior section separated and non-contiguous: anal ring setae moderate, about 58 μ long, approximately equal in length and size.

This species has been described from a single, somewhat imperfect, mounted specimen marked as collected in moss at 500 to 1700 meters in the Nimba Mountains in French Guinea by A. Villiers, Nov. 1946. Through the courtesy of Dr. Balachowsky, this type is deposited in the U. S. National Collection of Coccoidea.

This insect appears to the writer to agree satisfactorily with all the important generic characteristics of *Ortheziola*, such as the 3-segmented antenna seated on a sclerotized cylinder bearing the eyestalk on one side, the presence of a transverse sclerotized plate dorsally just before the anal ring, the 1-segmented beak, the capitate body spines, and, negatively, the apparent absence of abdominal spiracles. The host association (mosses) is also similar. At the same time, it differs strikingly from the genotype *Ortheziola signoreti* (Haller) (= *vejdoskyi* Sulc) in many details of structure, notably the presence of spine bands and clusters over most of the dorsal surface, with special clusters on the midline, in contrast to the completely exposed, bare discal area of *signoreti*. Legs and antennae are more slender, the anal ring is not so fully developed and the two transverse rows of spines across the enclosed area ventrally are not matched in the genotype, which has no spine rows in this area. The type locality of this new species represents a striking jump from the west European home of the genotype and the discovery of this second species hints that others may be found eventually and that the genus may presently show the same sort of discontinuous distribution of species that is evident for such related genera as *Newstcadia* and *Nipponorthezia*.

**NEARCTOPSYLLA (HOLLANDIANA) GEORGIANA, NEW
SPECIES FROM GEORGIA**

(SIPHONAPTERA, DOLICHOPSYLLIDAE)

BY HARRY D. PRATT¹ and J. O. HARRISON²

During the fall of 1952, the junior author collected a single male flea belonging to the rare genus *Nearctopsylla* from the short-tailed shrew (*Blarina brevicauda carolinensis* Bachman). The shrew was taken on the top of Brasstown Bald, elevation 4,782 feet, the highest mountain in Georgia. The six previously described species of *Nearctopsylla* have been found only in Canada or in northern or western United States (Holland and Jameson, 1949.) The discovery of this flea on a high mountain

¹Communicable Disease Center, Public Health Service, U. S. Department of Health, Education, and Welfare, Atlanta, Ga.

²Department of Entomology University of Georgia, Athens.